WiFi-200 User's Guide

DOC1347

Applies to:

WiFi-200 (111-200-01)

Document Revision: 01.000

February 6, 2014

SkyTrac Systems Ltd.
#200-170 Rutland Rd North
Kelowna, BC Canada
Tel. +1 (250) 765-2393
Fax +1 (250) 765-3767
Web: www.skytrac.ca
Email: techsupport@skytrac.ca

Copyright © 2014 SkyTrac Systems Ltd.
All rights reserved.

Document Revision History					
Rev	ECO	Page	Description	Date	Author
01.000	676	All	Initial Release	Feb 6, 2014	BB

ESD Caution

The WiFi-200 contains static sensitive circuitry that could be damaged from large electrostatic discharges directly into the connector pins. Use care when handling the WiFi-200 not to touch the connector pins unless properly grounded.

Disclaimer

The WiFi-200 Access Point is an installed electronic device.

Additional EMI testing may be required by your local approval authority to allow for the use of wireless devices in-flight. Contact your local approval authority for more information.

Warning

Changes or modifications not expressly approved by SkyTrac Systems Ltd (STS) could void the user's authority to operate the equipment.

Proprietary Notice: The Information contained in this document is proprietary and confidential to SkyTrac Systems Ltd.

Table Of Contents

1 Introduction 4

1.1 Acronyms 4
1.2 Scope 4
1.3 System Requirements 4

2 Using the WiFi-200 Access Point 5

2.1 Client Mode 5
2.2 Server Mode 5
2.3 Custom Configuration 6
2.3.1 Accessing the Configuration Web Interface 6
2.3.2 Setting the Wi-Fi Network Name (SSID) and Network Password 6
2.4 LED 7
2.4.1 Pre Mod A WiFi-200 LED Operation 7
2.4.2 Mod A and Later WiFi-200 LED Operation 7
2.5 Factory Reset 8
2.5.1 Resetting to Default Settings 8

Restricted Proprietary and Confidential Information

1 INTRODUCTION

The WiFi-200 is an airborne Wi-Fi access point and provides a bridge between a wireless smart phone or tablet computer and an ISAT-200A, ISAT-200R, ISAT-100 or DSAT-300.

The SkyTrac Remote Display Application (RDA) software running on a wireless device can be used to communicate with these SkyTrac products to enable the user to send emails, text messages and initiate satellite phone calls, as well as put the ISAT-200A, ISAT-200R, ISAT-100 or DSAT-300 into Emergency mode or to monitor the unit's status.

The full functionality of the RDA software can be found in the RDA User Guide (DOC1101).

Attention: The WiFi-200 Access Point is an installed electronic device. Additional EMI testing may be required by your local approval authority to allow for the use of wireless devices in-flight. Contact your local approval authority for more information.

1.1 Acronyms

Acronym	Description
STS	SkyTrac Systems Ltd.
ISAT	SkyTrac's Flight Following Unit with data and voice capability.
DSAT	Flight Following Unit with data capability only.
RDA	SkyTrac's Remote Display Application, installed on a smartphone.
EMI	Electromagnetic Interference
LED	Light Emitting Diode

1.2 Scope

This document provides instructions on the operation of SkyTrac System's WiFi-200 Module. For installation instructions see the WiFi-200 Installation Manual (DOC1346)

1.3 System Requirements

For simple connection to the device, any Wi-Fi enabled device can connect to the WiFi-200.

If a secure network is required (enabled in the WiFi-200 by default) the connecting wireless devices must be compatible with the security being used.

For RDA application, an installed ISAT-200A, ISAT-200R, ISAT-100 or DSAT-300 (all loaded with the latest Firmware) is required. A clear view of the sky by the ISAT/DSAT antenna is required for satellite communications.

The WiFi-200 module requires external power which can be provided by the ISAT-200 Aux Power output or an external 10-30VDC power source.

Restricted Proprietary and Confidential Information

2 USING THE WIFI-200 ACCESS POINT

The WiFi-200 can operate in one of two modes. For ISAT-200A, the WiFi-200 can be set to Client mode. This allows the WiFi-200 to act as a client, where it connects to another Wi-Fi hotspot.

In Server mode the WiFi-200 itself is the Wi-Fi hotspot and any wireless device can connect to it.

2.1 Client Mode

For ISAT-200A installations the WiFi-200 module is the client. Client mode can be set from the menu of the ISAT or by uploading the configuration file from a Wi-Fi enabled PC.

When the aircraft pulls up to the hangar or terminal, the WiFi-200 module will automatically connect to a local Wi-Fi hotspot when it detects it.

The ISAT-200A will then begin to download all the voice and flight data stored in the memory module over the Wi-Fi network to SkyWeb and the base station.

2.2 Server Mode

In Server mode, once the WiFi-200 is connected and powered up the WiFi-200 is the Wi-Fi hotspot and users may connect their wireless device to its network.

On your wireless device go into your Wi-Fi network settings. The wireless network should show up as ‘SkyTrac’, select it and enter the default password for this network, ‘skytrac1’. This is required the first time, subsequent connections will be automatic. See Section 2.3 for instructions to change the default username and password and other settings.

Since the WiFi-200 is a wireless router, users may connect PC’s to the network in order to share files locally if desired.

Open the Remote Display Application (RDA) on your smartphone. The top of the RDA app screen should show the device name you are connected to, e.g. ISAT 200.

For full instructions in usage of the RDA app refer to the Remote Display Application (STS-RDA) User Guide (DOC 1101).

The smartphone can now use the RDA app to communicate with the ISAT/DSAT the same as the CDP and DVI in the cockpit. You will be able to use the app to send and receive emails through the ISAT/DSAT while in flight.

Restricted Proprietary and Confidential Information

The WiFi-200 and the RDA application do not process or provide audio signals. The RDA can store phone numbers and initiate satellite phone calls however all audio still goes through the ISAT and the audio panel in the aircraft.

Note: The WiFi-200 is limited to ISAT/DSAT functions only, and does not provide general internet access.

2.3 Custom Configuration

The WiFi-200 comes pre-configured for connection to an ISAT-200A, ISAT-200R, ISAT-100 or DSAT-300. No reconfiguration is necessary for installation.

Users may, however, choose to modify the Wi-Fi Access Point configuration settings based on the installation and expected use. Configuration is accomplished through the WiFi-200's web interface. Access to the web interface is described below as well as instructions for modifying commonly-used settings

The default settings can be changed by connecting to the WiFi-200 with a PC.

2.3.1 Accessing the Configuration Web Interface

Open a web browser window and enter the IP address of the WiFi-200 in the address bar, default 192.168.5.1

When prompted for login credentials, enter username: dpac password: dpac

2.3.2 Setting the Wi-Fi Network Name (SSID) and Network Password

Select the Configuration menu option along the top of the webpage, then select the Express Setup menu on the left side of the screen.

In the WLAN Parameters section, enter the new network name into the SSID field.

In the WLAN Security Type select WPA-PSK and enter the new password in the WPA / WPA2 Pre Shared Key (PSK) field.

Click Commit to save the settings. The device must be rebooted for the changes to take effect.

Restricted Proprietary and Confidential Information

2.4 LED

2.4.1 Pre Mod A WiFi-200 LED Operation

The LED on the pre Mod A WiFi-200 will indicate power and TCP connection status.

An amber LED indicates that the WiFi-200 has power and is operating normally but no TCP connection has been made between the Wi-Fi port and one of the wired I/O ports.

A green LED indicates that the WiFi-200 has power and is operating normally and a TCP connection has been made between the Wi-Fi port and one of the wired I/O ports.

2.4.2 Mod A and Later WiFi-200 LED Operation

The LED on the Mod A and later WiFi-200 will indicate power and wireless network availability.

An amber LED indicates that the WiFi-200 has power but the wireless network is not ready for connections from wireless devices.

A green LED indicates that the WiFi-200 has power and the wireless network is initialized and ready for connections from wireless devices.

Restricted Proprietary and Confidential Information

2.5 Factory Reset

A factory reset will return the unit to the settings it had when it was shipped from manufacturing.

Note: Once the device has been factory reset, the Wi-Fi network name (SSID) will be set to the default value ‘SkyTrac’, and Wi-Fi network password protection will be disabled.

Following a factory reset, users should review these settings and update as required.

2.5.1 Resetting to Default Settings

The factory reset button is located on the right side of the WiFi-200. To perform a factory reset on the WiFi-200, use the following procedure:

1. Power off the WiFi-200.
2. Press and hold the Factory Reset button.
3. Power on the WiFi-200 while continuing to hold the Factory Reset Button.
4. Continue to hold the Factory Reset button for 5 seconds.
5. Release the Factory Reset button and turn the power off and back on.
6. The WiFi-200 will be set to SkyTrac factory defaults with Wi-Fi security disabled.

Once the WiFi-200 has been returned to the factory default settings, the unit may be reconfigured as desired, see Section 2.3.

Restricted Proprietary and Confidential Information

Copyright © 2014 SkyTrac Systems Ltd.
All rights reserved.